Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte WILLIAM D. RHODEN
and RAJEEV JAYAVANT

_____

Appeal No. 1999-0466
Application 08/530,617

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ON BRIEF

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Before JERRY SMITH, RUGGIERO and LALL, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-17, which constitute all the claims in the application. In response to appellants' brief on appeal, the examiner has indicated that claims 3-17 are allowable over the prior art of record [answer, page 2]. Therefore, this appeal is now directed to

the rejection of claims 1 and 2.

The disclosed invention pertains to a data processing system in which display memory is reallocated for use as system memory.

Representative claim 1 is reproduced as follows:

1. Apparatus for processing data comprising:

a system controller;

means for controlling a system display operation independently of the system controller;

means for storing data, said data storing means having a display memory portion with a first addressable location; and

means for reallocating said first addressable location of the data storing means as system memory which is accessible by the system controller via said display controlling means.

The examiner relies on the following references:

Kelleher et al. (Kelleher) 4,953,101 Aug. 28, 1990

"64200 (Wingine™) High Performance 'Windows™ Engine'", Chips and Technologies, Inc., July 1992, pages 4-11, 96 and 97 (hereinafter Wingine).

Claims 1 and 2 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers Wingine in view of Kelleher.

Rather than repeat the arguments of appellants or the examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1 and 2. Accordingly, we affirm.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine,

837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument

and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered [see 37 CFR
§ 1.192(a)].

With respect to claims 1 and 2 which stand or fall together, the examiner cites Wingine as teaching the use of two memory controllers where one memory controller gains access to a memory port controlled by a second memory controller. The examiner cites Kelleher as teaching the allocation of video memory between system memory and graphics memory and accessing the video memory as system memory through the graphics controller. The examiner indicates that it would have been obvious to the artisan to combine the teachings of Wingine and Kelleher to permit efficient use of the video

memory [answer, pages 4-5].

Appellants argue that claim 1 recites that the system memory location is accessed by the system controller via the display controlling means. Appellants argue that although Wingine shows a separate system controller and graphics controller, Wingine does not teach the sharing of a single physical memory between display memory and system memory. Appellants also argue that although Kelleher teaches the sharing of a single physical memory, Kelleher does not provide a separate controller. Finally, appellants argue that the prior art teachings would not have motivated the artisan to modify Wingine so that system accesses to VRAM would occur through the Wingine controller as asserted by the examiner [brief, pages 3-4].

The examiner responds that appellants are pointing out individual deficiencies in the references to attack teachings for which they are not being relied on. The examiner also argues that there is clear motivation for combining the teachings of Wingine and Kelleher and that the combined system teaches the use of a system memory controller requesting access to the shared VRAM through the graphics controller

[answer, pages 5-8].

We agree with the position argued by the examiner. As admitted by appellants, Wingine teaches a system memory controller and a graphics memory controller. The system memory controller can access DRAM system memory or VRAM display memory. However, it does not appear that the system memory accesses to VRAM in Wingine are made through the graphics controller (the Wingine controller) as recited in claim 1. Kelleher teaches that VRAM 20 can be allocated between graphics memory and system memory. When locations of VRAM 20 are used as system memory in Kelleher, the processor 50 makes access requests to VRAM 20 through graphics controller 18. Although Kelleher does not specifically identify anything as a system controller, the accessing of VRAM 20 from processor 50 as system memory would have suggested the presence of a system controller in processor 50 for addressing VRAM 20. Thus, notwithstanding appellants' arguments to the contrary, we find that Kelleher would have suggested to the artisan that VRAM can be accessed for system use by a system controller through a graphics controller. We agree with the examiner that it would have been obvious for

the system memory controller of Wingine to make accesses to VRAM through the Wingine graphics controller as taught by Kelleher. Therefore, we sustain the examiner's rejection of claims 1 and 2.

Since we have sustained the examiner's rejection of claims 1 and 2, the decision of the examiner rejecting claims 1 and 2 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

JERRY SMITH Administrative Patent Judge	)
JOSEPH F. RUGGIERO Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
PARSHOTAM S. LALL Administrative Patent Judge	)

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